

—Working Papers—
**Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to
Laboratory Performance Requirements (LPRs) and Implementation Requirements (LIRs)**

Note:

Further granularity (specific references) of the citations of the DOE Orders, National Consensus Standards and Code of Federal Regulations beyond what is identified in this Crosswalk can be found in the LPRs and/or Laboratory Issue Sheets.

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
<i>EMERGENCY MANAGEMENT</i>		
10 CFR 835, Occupational Radiation Protection 40 CFR 355 Emergency Planning and Notification (SARA Title III) 40 CFR 302.1 et seq. (CERCLA) DOE O 151.1A, Comprehensive Emergency Management System DOE O 5530.1A, Accident Response Group (Appendix G) DOE O 5530.2, Nuclear Emergency Search Team (Appendix G) DOE O 5530.3, Radiological Assistance Program (Appendix G) DOE O 5530.5, Federal Radiological Monitoring and Assessment Center (Appendix G) Fire Protection Association (NFPA) National Fire Codes (most recent addition) with the exception of NFPA 70, National Electrical Code – NFPA 70 National Electrical Code 1999 New Mexico Hazardous Material Response Plan and Procedure 40 CFR 112, Oil Pollution Prevention, Spills 61 FR 20943-70, Emergency Planning and Notification (SARA Title III) 29 CFR 1910, Occupational Safety and Health Standards 40 CFR 260-270 and 279, Protection of the Environment; HAZMAT Disposal; RCRA; Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities; EPA Administered Permit Programs: The Hazardous Waste Permit Program 40 CFR 68, Chemical Accident Prevention Provisions (CAA); EPA Risk Management Rule; Accidental Release ACGIH, 1997, <i>Threshold Limit Values</i> , Light and Near-Infrared Radiation; Static Magnetic Fields; Sub-Radiofrequency (30kHz and below) Magnetic Fields; Sub-Radiofrequency (30kHz and below) and Static Electric Fields; Ultraviolet Radiation; Cold	403-00-00, Emergency Management	402-130-01, Abnormal Events 403-00-01, Los Alamos National Laboratory Emergency Management Cites EMP 403-00-00, Emergency Management Plan

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
Stress; Heat Stress; Noise; Chemical Substances 74-4B, NMSA, New Mexico Emergency Management Act DoD-EODB 60A-1-1-9, Discovery and Disposal Procedure for Environmental Experiment and Related HAZMAT DoD-EODB 60A-11-38, Dynamite ID, Neutralization and Disposal		

<i>ENVIRONMENTAL/ PUBLIC PROTECTION</i>		
Air		
20 NMAC 2.1, General Provisions 20 NMAC 2.11, Asphalt Process Equipment 20 NMAC 2.2, Definitions 20 NMAC 2.3, Ambient Air Quality Standards 20 NMAC 2.60, Open Burning 20 NMAC 2.61, Control of Smoke and Visible Emissions 20 NMAC 2.7, Excess Emissions during Malfunction, Startup, Shutdown, or Scheduled Maintenance 20 NMAC 2.70, Operating Permits 20 NMAC 2.71, Operating Permit Emission Fees 20 NMAC 2.72, Construction Permits 20 NMAC 2.73, Notice of Intent and Emissions Inventory Requirements 20 NMAC 2.77, New Source Performance Standards (40 CFR 60 Subpart A); Volatile Organic Liquid Storage; 20 NMAC 2.78, NESHAP - General Provisions (40 CFR 61	404-00-00, Environmental Protection	404-10-01, Air Quality Reviews

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
<p>Subpart A); for Asbestos (40 CFR 61 Subpart M); for Beryllium (40 CFR 61 Subpart C)</p> <p>20 NMAC 2.78, NESHAP for Asbestos (40 CFR 61 Subpart M)</p> <p>20 NMAC 2.78, NESHAP for Beryllium (40 CFR 61 Subpart C)</p> <p>20 NMAC 2.82, General Requirements (40 CFR 63 Subpart A)</p> <p>40 CFR 61 Subpart H, NESHAP for Radionuclides other than Radon for DOE Facilities</p> <p>40 CFR 61 Subpart H; 61 Subpart Q, NESHAP for Radionuclides other than Radon for DOE Facilities; Radon Emissions from DOE Facilities</p> <p>40 CFR 61 Subpart Q, NESHAP for Radon Emissions from DOE Facilities</p> <p>40 CFR 63 Subpart T, NESHAP for Halogenated Solvent Cleaning</p> <p>40 CFR 68, Accidental Release</p> <p>40 CFR 68, Chemical Accident Prevention Provisions (CAA); EPA Risk Management Rule; Accidental Release</p> <p>40 CFR 80 Subpart B, Controls and Prohibitions</p> <p>40 CFR 80 Subpart B; Subpart G, Controls and Prohibitions</p> <p>40 CFR 80 Subpart G, Fuels and Fuel Additives; Regulation of Fuels and Fuel Additives: Interim Requirements for Deposit Control Gasoline Additives</p> <p>40 CFR 82 Subpart B, Servicing of Motor Vehicle Air Conditioners</p> <p>40 CFR 82, Subpart F, Recycling and Emission Reduction</p> <p>Clean Air Act and Clean Air Act Amendments</p> <p>New Mexico Air Quality Control Act</p>		

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
<i>NATURAL/CULTURAL RESOURCES</i>		
<p>10 CFR 1021, National Environmental Policy Act Implementing Regulations</p> <p>16 U.S.C. 1531-1543, Endangered Species Act</p> <p>16 U.S.C. 470aa-11, Public Law 89-665, National Historic Preservation Act (NHPA)</p> <p>36 CFR 60, National Register of Historic Places</p> <p>36 CFR 63, Determinations of Eligibility for Inclusion in the National Register</p> <p>36 CFR 65, National Historic Landmarks Program</p> <p>36 CFR 68, Secretary of the Interior's Standards for the Treatment of Historic Properties</p> <p>36 CFR 78, Waiver of Federal Agency Responsibilities under Section 110 of NHPA</p> <p>36 CFR 79, Curation of Federally Owned and Administered Archeological Collections</p> <p>36 CFR 800, Protection of Historic and Cultural Properties</p> <p>40 CFR 1500-1508, Protection of the Environment</p> <p>40 CFR 300, National Oil and Hazardous Substances Pollution Contingency Plan</p> <p>40 CFR 302.1 et seq., CERCLA</p> <p>42 U.S.C. 4321-4347, PL 91-190, National Environmental Policy Act</p> <p>43 CFR 11, Natural Resource Damage Assessments, Final Rule</p> <p>43 CFR 78, Protection of Archeological Resources</p> <p>50 CFR 10, General Provisions (April 5, 1985)</p>	<p>404-00-00, Environmental Protection</p>	<p>220-03-01, Facility Engineering Manual</p> <p>402-510-01, Chemical Management</p> <p>402-701-01, Radiological Access Control</p> <p>404-00-02, General Waste Management Requirements</p> <p>404-00-03, Hazardous and Mixed Waste Requirements</p> <p>404-00-04, Managing Solid Waste</p> <p>404-00-05, Managing Radioactive Waste</p> <p>404-00-06, Managing Polychlorinated Biphenyls</p> <p>404-30-02, NEPA, Cultural Resources, and Biological Resources (NCB) Process</p> <p>404-50-01, Water Pollution Control</p>

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
50 CFR 17.11, Endangered and Threatened Wildlife 50 CFR 17.12, Endangered and Threatened Plants 50 CFR 402, Interagency Cooperation - Endangered Species Act of 1973 66-12 NMSA 1978, New Mexico Boat Act DOE O 5400.1 General Environmental Protection Program (except Chapter 2, paragraphs 2, 4.d, and 5) DOE O 5400.5 Radiation Protection of the Public and the Environment Federal Water Pollution Control Act Public Law 101-601, Native American Graves Protection and Repatriation Act (NAGPRA) Public Law 95-341, American Indian Religious Freedom Act (AIRFA) Public Law 96-95, 16 U.S.C. 470, Archeological Resources Protection Act (ARPA)		

Waste/Excess		
10 CFR 962, By-Product Material 20 NMAC 4.1-4.13, NM Hazardous Waste Act 20 NMAC 5.1-5.14, New Mexico Hazardous Waste Act and New Mexico Groundwater Protection Act 20 NMAC 9.1, Solid Waste Management 20 NMAC 9.4, Solid Waste Plans 40 CFR 260-270 and 279, Protection of the Environment; HAZMAT Disposal; RCRA; Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities; EPA Administered Permit Programs: The Hazardous Waste Permit Program	404-00-00, Environmental Protection	402-100-02, Hazardous Waste Operations and Emergency Response Training Requirements 404-00-02, General Waste Management Requirements 404-00-03, Hazardous and Mixed Waste Requirements 404-00-04, Managing Solid Waste 404-00-05, Managing Radioactive Waste 404-00-06, Managing Polychlorinated Biphenyls 404-30-02, NEPA, Cultural Resources, and

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
40 CFR 761, Toxic Substances Control Act, PCBs only 42 U.S.C. 13101-2, 13107, Pollution Prevention Act 42 U.S.C. 7401, 7511b, 7671g, Clean Air Act 42 USC 6901 RCRA 74-4-1 to 13 (1993), New Mexico Hazardous Waste Act DOE O 435.1, Radioactive Waste Management DOE M 435.1, Radioactive Waste Management Manual, except for Chapter III, paragraph N. (1) and Chapter IV, paragraph N. (1) DOE O 5400.5, Radiation Protection of the Public and the Environment LIR 404-00-05, Managing Radioactive Waste, paragraph 7.3.2, Storage to Facilitate Treatment PCB Landfill Approval Conditions		Biological Resources (NCB) Process 404-50-01, Water Pollution Control

Water		
20 NMAC 1.3, Requirement of Filing of Procedure Manual 20 NMAC 6.1, Water Quality; General Provisions 20 NMAC 6.1, Water Quality; General Provisions 20 NMAC 6-2, Ground and Surface Water Protection 20 NMAC 7.1, Drinking Water 20 NMAC 7.3, Liquid Waste Disposal 20 NMAC 7.4, Utility Operator Certification 20 NMAC 9.1, Solid Waste Management 20 NMAC 9.4, Solid Waste Plans 21 NMAC 17.53, Continuing Education Units for Pesticide Applicators 21 NMAC 17.56, Restricted-Use	403-00-00, Emergency Management 404-00-00, Environmental Protection	402-510-01, Chemical Management 403-00-01, Los Alamos National Laboratory Emergency Management 404-00-02, General Waste Management Requirements 404-00-03, Hazardous and Mixed Waste Requirements 404-00-04, Managing Solid Waste 404-00-05, Managing Radioactive Waste 404-00-06, Managing Polychlorinated Biphenyls 404-30-02, NEPA, Cultural Resources, and Biological Resources (NCB) Process 404-50-01, Water Pollution Control

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
<p>33 CFR 320, 321, 322, 323, and 330, Corps of Engineers Regulations for Protection of Water of the US and Nationwide Permit Program</p> <p>33 U.S.C. 1251 et seq., Federal Water Pollution Control Act</p> <p>33 U.S.C. 2701 et seq., Oil Pollution Act</p> <p>40 CFR 104, Public Hearings on Effluent Standards for Toxic Pollutants</p> <p>40 CFR 110, Discharge of Oil</p> <p>40 CFR 112, Oil Pollution Prevention; Spills</p> <p>40 CFR 116, Designation of Hazardous Substances</p> <p>40 CFR 117, Determination of Reportable Quantities for Hazardous Substances</p> <p>40 CFR 121, State Certification of Activities Requiring a Federal License or Permit</p> <p>40 CFR 122, EPA Administered Permit Programs</p> <p>40 CFR 124, Procedures for Decision Making</p> <p>40 CFR 125, Criteria and Standards for the</p> <p>40 CFR 129, Toxic Pollutant Effluent Standards</p> <p>40 CFR 131, Water Quality Standards</p> <p>40 CFR 133, Secondary Treatment Regulation</p> <p>40 CFR 135, Prior Notice of Citizen Suits</p> <p>40 CFR 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants</p> <p>40 CFR 141, National Primary Drinking Water Regulations</p> <p>40 CFR 142, National Primary Drinking Water Regulations Implementation</p> <p>40 CFR 143, National Secondary Drinking Water Regulations</p> <p>40 CFR 171, Certification of Pesticide Applicators</p> <p>40 CFR 260-270 and 279, Protection of the Environment; HAZMAT Disposal; RCRA; Standards for Owners and</p>		

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
<p>Operators of Hazardous Waste Treatment, Storage and Disposal Facilities; EPA Administered Permit Programs: The Hazardous Waste Permit Program</p> <p>40 CFR 302, Designation, Reportable Quantities and Notification</p> <p>40 CFR 355, Emergency Planning and Notification</p> <p>40 CFR 503, Standards for the Use or Disposal of Sewage Sludge</p> <p>42 U.S.C. 11001 et seq., Emergency Planning and Community Right to Know Act</p> <p>42 U.S.C. 300f et seq., Safe Drinking Water Act</p> <p>42 U.S.C. 6901, 6925, 6939e, and 6961-5 et seq., Resource Conservation and Recovery Act</p> <p>42 U.S.C. 9601 et seq., Comprehensive Environmental Response, Compensation and Liability Act</p> <p>7 U.S.C. 136 et seq., Federal Insecticide, Fungicide, and Rodenticide Act</p> <p>72-2-8, 72-2-12, and 72-13-4, NMSA 1978, New Mexico Law, Sections, New Mexico State Engineer's Office Rules</p> <p>74-1-8, NMSA 1978, New Mexico Environmental Improvement Act, Section</p> <p>74-4-1 to -13 NMSA, New Mexico Hazardous Waste Act</p> <p>74-4E-1 to -9 NMSA (1993), New Mexico Hazardous Chemicals Information</p> <p>74-6-1 et seq., NMSA 1993, New Mexico Water Quality Act</p> <p>74-9-1 et seq., NMSA, New Mexico Solid Waste Act</p> <p>76-4-1 NMSA, New Mexico Pesticide Control Act</p> <p>DOE O 435.1, Radioactive Waste Management</p> <p>DOE M 435.1, Radioactive Waste Management Manual, except for Chapter III, paragraph N. (1) and Chapter IV, paragraph N. (1)</p> <p>DOE O 5400.1 General Environmental Protection Program</p>		

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
(except Chapter 2, paragraphs 2, 4.d, and 5) DOE O 5400.5 Radiation Protection of the Public and the Environment Federal Facility Compliance Act, Title 42 USC 6939;e. Section 3023, Federally Owned Treatment Works. LIR 404-00-05, Managing Radioactive Waste, paragraph 7.3.2, Storage to Facilitate Treatment NMDA Regulatory Order 4 Regulatory Orders of the Board of Regents of New Mexico State University NMDA Regulatory Order 5 Definitions, Licensing, Equipment Inspections, Record Keeping of Pesticides by Regulated Applicators NMDA Regulatory Order 7 Establishes Financial Responsibility for Commercial Applicators NMDA Rule 88-2, Fees for Pesticide Registrations NMDA Rule 89-1, Control of Wood-Destroying NMDA Rule 89-2, Restricted Use		

<i>FACILITIES MANAGEMENT</i>		
Design/Construction		
20 NMAC 2.72, Construction Permits 20 NMAC 5.1-5.14, New Mexico Hazardous Waste Act and New Mexico Groundwater Protection Act 29 CFR 1910, Occupational Safety and Health Standards 29 CFR 1926, Safety and Health Regulations for Construction 40 CFR 280, Technical Standards and Corrective Action requirements for Owners and Operators of Underground Storage Tank (UST)	220-03-00, Engineering Design 220-04-00, Engineering Control for Project Execution 220-06-00, Program and Project Management for the Acquisition of Capital Assets 402-00-00, Worker Health and Safety Appendix 5, Electrical Safety	220-01-01, Construction Project Management 220-03-01, Facility Engineering Manual 230-05-01, Operations and Maintenance Manual 240-01-01, Facility Configuration Management 402-600-01, Electrical Safety 402-910-01, LANL Fire Protection Program

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
<p>49 CFR 30-399, Department of Transportation, Motor Carrier Safety Regulations</p> <p>Americans with Disabilities Act (ADA)</p> <p>DOE 420.1, Facility Safety, as exempted</p> <p>DOE M 440.1-1, Revision 8, 3/96, Explosives Safety Manual</p> <p>DOE O 414.1A, Quality Assurance</p> <p>DOE OSS Range Design Criteria Guide</p> <p>Fire Protection Association (NFPA) <i>National Fire Codes</i> (most recent addition) with the exception of NFPA 70, National Electrical Code – NFPA 70 National Electrical Code 1999</p> <p>INCZ (ASHRAE) 61.1989, Ventilation for Acceptable Indoor Air Quality</p> <p>U.S. Air Force Regulation AFR 50-36, dated March 15, 1984, Vol 1, Combat Arms Training and Maintenance Program Management, Chap. 2, Facility Criteria, 2-6.b(b)1, including Figure 2-11, and 2-6b(2), including Table 2-1 as applicable to the M-79 grenade launcher.</p> <p>Uniform Building Code (UBC)</p>		

Maintenance		
<p>10 CFR 830.120, Quality Assurance for Nuclear Facilities</p> <p>29 CFR 1910, Occupational Safety and Health Standards</p> <p>AL Supplemental Directive 5481.1b, Safety Analysis and Review System</p> <p>ANSI B31.1, Power Boilers (most recent edition)</p> <p>ASME Boiler and Pressure Vessel Code (most recent edition)</p> <p>DOE O 414.1A, Quality Assurance</p>	<p>230-03-00.0, Maintenance Work Control</p> <p>230-04-00, Conduct of Maintenance</p> <p>230-05-00, Preventive Maintenance</p> <p>308-00-00, Quality</p>	<p>230-01-02, Graded Approach for Facility Work</p> <p>230-03-01, Facility Management Work Control</p> <p>230-03-02, Maintenance Skill of Craft</p> <p>230-04-01, Laboratory Maintenance Management Program</p> <p>230-05-01, Operations and Maintenance Manual</p> <p>240-01-01, Facility Configuration Management</p> <p>250-02-02, Facility Tenant Agreements</p>

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
<p>DOE O 425.1, Startup and Restart of Nuclear Facilities, Chg 1: 10-26-95, with the exception of the DOE O 5480.19 citation</p> <p>DOE O 5480.20A, Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities, 11-15-94</p> <p>DOE O 5480.21, Unreviewed Safety Questions, 12-24-91</p> <p>DOE O 5480.22, Technical Safety Requirements, Change 2: 1-23-96</p> <p>DOE O 5480.23, Nuclear Safety Analysis Reports, Effective Date: 4-30-92</p> <p>DOE O 6430.1A, General Design Criteria, Division 13</p> <p>DOE-STD-3013-94, Criteria for Safe Storage of Plutonium Metals and Oxides, 12-94</p> <p>LANL LPR 270-02, "Perform Assessment of Operating Limits and Start-Up Tests"</p>		<p>280-02-01, Laboratory Facility Management Program</p> <p>402-10-01, Hazard Analysis and Control for Facility Work</p>

Operations		
<p>10 CFR 830, Nuclear Safety Management</p> <p>10 CFR 830.120, Quality Assurance for Nuclear Facilities</p> <p>20 NMAC 2.72, Construction Permits</p> <p>20 NMAC 5.1-5.14, New Mexico Hazardous Waste Act and New Mexico Groundwater Protection Act</p> <p>29 CFR 1910, Occupational Safety and Health Standards</p> <p>29 CFR 1926, Safety and Health Regulations for Construction</p> <p>40 CFR 280, Technical Standards and Corrective Action requirements for Owners and Operators of Underground Storage Tank (UST)</p> <p>AL Supplemental Directive 5481.1b, Safety Analysis and Review System</p>	<p>210-01-00, Comprehensive Site and Facility Planning</p> <p>210-03-00, Define the Facility</p> <p>210-05-00, Perform Vulnerability Analysis</p> <p>220-01-00, Managing Facility Project</p> <p>230-01-00, Managing Facility Assets</p> <p>230-02-00, Facility Condition and Inspections</p> <p>230-03-00, Maintenance Work Control</p> <p>230-06-00, Maintenance Procedures and Documentation</p> <p>230-07-00, Maintenance History</p> <p>230-08-00, Parts, Materiel, and Services</p>	<p>210-01-01, LANL Comprehensive Site Planning Program</p> <p>220-03-01, Facility Engineering Manual</p> <p>230-01-02, Graded Approach for Facility Work</p> <p>230-03-01, Facility Management Work Control</p> <p>230-03-02, Maintenance Skill of Craft</p> <p>240-01-01, Facility Configuration Management</p> <p>240-01-03, Authorization Agreement</p> <p>250-02-01, Occupying or Vacating Work Space</p> <p>250-02-02, Facility Tenant Agreements</p> <p>280-02-01, Laboratory Facility Management Program</p> <p>300-00-05, Facility Hazard Categorization</p> <p>300-00-06, Nuclear Facility Safety</p>

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
<p>ANSI B31.1, Power Boilers (most recent edition)</p> <p>ASME Boiler and Pressure Vessel Code (most recent edition)</p> <p>DOE 420.1, Facility Safety, as exempted</p> <p>DOE M 440.1-1, Revision 8, 3/96, Explosives Safety Manual</p> <p>DOE O 414.1A, Quality Assurance</p> <p>DOE O 425.1, Startup and Restart of Nuclear Facilities, Chg 1: 10-26-95, with the exception of the DOE O 5480.19 citation</p> <p>DOE O 5480.20A, Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities, 11-15-94</p> <p>DOE O 5480.21, Unreviewed Safety Questions, 12-24-91</p> <p>DOE O 5480.22, Technical Safety Requirements, Change 2: 1-23-96</p> <p>DOE O 5480.23, Nuclear Safety Analysis Reports, Effective Date: 4-30-92</p> <p>DOE O 6430.1A, General Design Criteria, Division 13</p> <p>DOE-STD-3013-94, Criteria for Safe Storage of Plutonium Metals and Oxides, 12-94</p> <p>Fire Protection Association (NFPA) <i>National Fire Codes</i> (most recent addition) with the exception of NFPA 70, National Electrical Code – NFPA 70 National Electrical Code 1999</p> <p>INCZ (ASHRAE) 61.1989, Ventilation for Acceptable Indoor Air Quality</p> <p>LANL LPR 270-02-00, “Perform Assessment of Operating Limits and Start-Up Tests” (currently exists and addresses the philosophy of AL 5480.31 cited below)</p> <p>Uniform Building Code (UBC)</p>	<p>230-09-00, Inventory and Categorization of Facilities</p> <p>240-02-00, Managing Facility and Tenant Operations Limits and Configuration</p> <p>250-01-00, Managing Facility Business</p> <p>250-02-00, Facility Partnership Agreements</p> <p>260-01-00, Inspection, Testing, and Calibration</p> <p>280-01-00, Managing Facility Human Resources</p> <p>280-02-00, Roles and Responsibilities for Managing Facilities</p> <p>308-00-00, Quality</p> <p>310-00-00, Formality of Operations</p>	<p>Authorization Basis</p> <p>300-00-07, Nonnuclear Facility Safety Authorization</p> <p>402-10-01, Hazard Analysis and Control for Facility Work</p> <p>402-130-01, Abnormal Events</p>

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
Systems/Equipment		
<p>10 CFR 830.120, Quality Assurance for Nuclear Facilities</p> <p>29 CFR 1910, Occupational Safety and Health Standards</p> <p>AL Supplemental Directive 5481.1b, Safety Analysis and Review System</p> <p>ANSI B31.1, Power Boilers (most recent edition)</p> <p>ASME Boiler and Pressure Vessel Code (most recent edition)</p> <p>DOE O 414.1A, Quality Assurance</p> <p>DOE O 425.1, Startup and Restart of Nuclear Facilities, Chg 1: 10-26-95, with the exception of the DOE O 5480.19 citation</p> <p>DOE O 5480.20A, Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities, 11-15-94</p> <p>DOE O 5480.21, Unreviewed Safety Questions, 12-24-91</p> <p>DOE O 5480.22, Technical Safety Requirements, Change 2: 1-23-96</p> <p>DOE O 5480.23, Nuclear Safety Analysis Reports, Effective Date: 4-30-92</p> <p>DOE O 6430.1A, General Design Criteria, Division 13</p> <p>LANL LPR 270-02-00, "Perform Assessment of Operating Limits and Start-Up Tests" (currently exists and addresses the philosophy of AL 5480.31 cited below)</p>	<p>270-02-00, Perform Assessment of Operating Limits and Start-Up Tests</p> <p>308-00-00, Quality</p>	<p>220-03-01, Facility Engineering Manual</p> <p>230-05-01, Operations and Maintenance Manual</p> <p>307-00-01, Safety Self-Assessment</p> <p>307-01-03, Management Safety Walk-Arounds</p>

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
<i>FIRE PROTECTION</i>		
<p>29 CFR 1910, Occupational Safety and Health Standards</p> <p>DOE O 420.1 Facility Safety, except for Section 4.2, 2nd paragraph (4), Section 4.2.19 and Section 4.2.2.4</p> <p>Fire Protection Association (NFPA) <i>National Fire Codes</i> (most recent addition) with the exception of NFPA 70, National Electrical Code – NFPA 70 National Electrical Code 1999</p> <p>LIR 402-910-01, LANL Fire Protection Program, Section 6.1 (WSS)</p> <p>National Fire Danger Rating System (NFDRS)</p> <p>Uniform Building Code (UBC)</p>	<p>402-00-00, Worker Health and Safety, App. 9, Fire Protection</p>	<p>402-910-01, LANL Fire Protection Program</p>

<i>MANAGEMENT SYSTEMS</i>		
<p>10 CFR 830.120, Quality Assurance for Nuclear Facilities</p> <p>20 NMAC 2.72, Construction Permits</p> <p>20 NMAC 5.1-5.14, New Mexico Hazardous Waste Act and New Mexico Groundwater Protection Act</p> <p>29 CFR 1910, Occupational Safety and Health Standards</p> <p>29 CFR 1926, Safety and Health Regulations for Construction</p> <p>AL Supplemental Directive 5481.1b, Safety Analysis and Review System</p> <p>DOE 420.1, Facility Safety, as exempted</p> <p>DOE M 440.1-1, Revision 8, 3/96, Explosives Safety Manual</p> <p>DOE O 425.1, Startup and Restart of Nuclear Facilities, Chg 1: 10-26-95, with the exception of the DOE O 5480.19 citation</p> <p>DOE O 5480.20A, Personnel Selection, Qualification, and</p>	<p>210-02-00, Define Work Within Facility</p> <p>210-04-00, Define Expectations</p> <p>220-02-00, Project Definition</p> <p>220-05-00, Project Execution</p> <p>240-01-00, Facility and Operating Limits and Configuration</p> <p>270-01-00, Self-Assessment Activities</p> <p>308-00-00, Quality</p>	<p>230-01-01, Laboratory Excess Space and Surplus Facility Requirements</p> <p>230-03-01, Facility Management Work Control</p> <p>230-03-02, Maintenance Skill of Craft</p> <p>280-01-01, Facility Management Training and Qualification Program</p> <p>300-00-01, Safe Work Practices</p> <p>307-00-01, Safety Self-Assessment</p> <p>307-01-03, Management Safety Walk-Arounds</p> <p>401-10-01, Stop Work and Restart</p> <p>402-100-01, Signs, Labels, and Tags</p> <p>402-10-01, Hazard Analysis and Control for Facility Work</p> <p>402-130-01, Abnormal Events</p>

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
<p>Training Requirements for DOE Nuclear Facilities, 11-15-94</p> <p>DOE O 5480.21, Unreviewed Safety Questions, 12-24-91</p> <p>DOE O 5480.22, Technical Safety Requirements, Change 2: 1-23-96</p> <p>DOE O 5480.23, Nuclear Safety Analysis Reports, Effective Date: 4-30-92</p> <p>DOE O 6430.1A, General Design Criteria, Division 13</p> <p>Fire Protection Association (NFPA) <i>National Fire Codes</i> (most recent addition) with the exception of NFPA 70, National Electrical Code – NFPA 70 National Electrical Code 1999</p> <p>INCZ (ASHRAE) 61.1989, Ventilation for Acceptable Indoor Air Quality</p> <p>LANL LPR 270-02-00, “Perform Assessment of Operating Limits and Start-Up Tests” (currently exists and addresses the philosophy of AL 5480.31 cited below)</p> <p>Uniform Building Code (UBC)</p>		

Performance Assurance		
<p>DOE O 2300.1B Audit Resolution Follow-up (Appendix G)</p> <p>DOE O 5482.1B Environment, Safety, and Health Appraisal Program (Appendix G)</p> <p>DOE O 5630.12A Safeguards and Security Inspection and Evaluation Program (Appendix G)</p>	<p>270-01-00, Self-Assessment Activities</p> <p>270-02-00, Perform Assessment of Operating Limits and Start-Up Tests</p> <p>300-00-00, Integrated Safety Management</p> <p>307-01-00, Performance Assurance</p>	<p>307-01-01, Safety Self Assessment</p> <p>307-01-03, Management Safety Walk-Arounds</p> <p>307-01-04, Safety Concern Program</p> <p>402-130-01, Abnormal Events</p>

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
Quality Assurance		
10 CFR 830, Nuclear Safety Management 10 CFR 830.10, Quality Assurance for Nuclear Facilities DOE O 414.1A, Quality Assurance	230-08-00, Parts, Materiel, and Services 260-02-00, Calibration 308-00-00, Quality	300-00-05, Facility Hazard Categorization 300-00-06, Nuclear Facility Safety Authorization Basis 300-00-07, Nonnuclear Facility Safety Authorization
Requirements Management		
LA-UR-98-328, Integrated Safety Management Plan Description	300-00-00, Integrated Safety Management	301-00-00, Managing Change Control of Laboratory Operations Standards and Requirements 301-00-01, Issuing and Managing Laboratory Operations Implementation Requirements and Guidance 301-00-02, Exceptions or Variances to Laboratory Operations Requirements
Training		
DOE O 5480.20A, Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities, 11-15-94	300-00-00, Integrated Safety Management	300-00-04, Laboratory Training: A Graded and Systematic Approach to a Qualified Workforce

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
---	---	--

<i>Occupational Health And Safety</i>		
Biological Safety		
<p>“Bio-safety in Microbiological and Biomedical Laboratories”, U.S. Department of Health and Human Services, Public Health Service, Centers for Disease control and Prevention and National Institutes of Health, 3 rd Edition, May 1993.</p> <p>29 CFR 1910.1030, Occupational Safety and Health Standards, Blood-Borne Pathogens</p> <p>9 FR Chapter 1, Section 2.31 Institutional Animal Care and Use Committee.</p> <p>Guide for the Care and Use of Laboratory Animals, National Research Council, International Standard Book Number 0-309-05377-3.</p> <p>Occupational Safety and Health - PL 91-596, Sections 4,5(a)(1), 6,8</p> <p>Policy on Humane Care and Use of Laboratory Animals, Public Health Service, National Institutes of Health, Revised September, 1986, Reprinted March 1996.</p> <p>Title 42 CFR Part 72 – Interstate Shipment of Etiologic Agents.</p>	402-00-00, Worker Health and Safety, App. 1, Biological Safety	<p>402-10-01, Hazard Analysis and Control for Facility Work</p> <p>402-530-00, Biological Safety (Biosafety)</p> <p>402-530-01, Institutional Animal Care and Use</p>

Chemical/Toxicity/ Hazards		
<p>21 CFR 1301, Controlled Substances</p> <p>29 CFR 1904.1-13, Recording Occupational Injuries</p> <p>29 CFR 1910.1000, OSHA Permissible Exposure Limits</p> <p>29 CFR 1910.1001-1052, OSHA Toxic and Hazardous Substances: i.e., lead, asbestos, cadmium, benzene, and others</p> <p>29 CFR 1910.106, 144, 108, 114, 1200, 115, 178, Flammable and Combustible Liquids</p> <p>29 CFR 1910.110, 103, 252, 253, Flammable Gases</p> <p>29 CFR 1910.119, Process Safety Management</p>	402-00-00, Worker Health and Safety, App. 2, Chemical and Hazardous Materials Handling	<p>220-03-01, Facility Engineering Manual</p> <p>402-1000-01, Personnel Protective Equipment</p> <p>402-100-01, Sign, Labels and Tags</p> <p>402-510-01, Chemical Management</p> <p>402-560-01, Beryllium Use</p> <p>402-570-01, Asbestos</p>

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
29 CFR 1910.120, Hazardous Waste Operations and Emergency Response 29 CFR 1910.1200, Hazard Communication Standard 29 CFR 1910.132-138 Personal Protective Equipment 29 CFR 1910.1450, Occupational Exposure to Hazardous Chemicals in Laboratories 29 CFR 1910.147, Lockout/Tagout 29 CFR 1910.151, Medical Services and First Aid 29 CFR 1910.94, Ventilation 29 CFR 1926, Subpart D, Occupational Health and Environmental Controls 29 CFR 1926, Subpart E, Personal Protective and Life Saving Equipment 29 CFR 1926, Subpart Z, Toxic and Hazardous Substances 40 CFR 150-189, Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) (FEPCA) certified pesticide applicators 40 CFR 170, 171, Subchapter E, Pesticide Programs 40 CFR 261-265, HAZMAT Disposal 40 CFR 68, EPA Risk Management Rule, as applicable 40 CFR 720, Toxic Substance Control Act American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs) 1997 Edition, Chemical Substances ANSI Z385.1-1990, Emergency Shower and Eyewash Equipment, except for paragraphs 4.7.1, 5.5.1, 7.5.1, 9.5.1, and Appendix A, Paragraph A.1 ANSI Z88.2, Respiratory Protection (most recent addition) DOE N 440.1, 7-15-97, Interim Chronic Beryllium Disease Prevention Program, Superseded by 10 CFR 850, Chronic Beryllium Disease Prevention Program		

Confined Spaces Safety		
29 CFR 1910, Occupational Safety and Health Standards	402-00-00, Worker Health and Safety, App. 3, Confined Spaces Safety	402-100-01, Signs, Labels, and Tags 402-10-01, Hazard Analysis and Control for

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
29 CFR 1926, Safety and Health Regulations for Construction		Facility Work 402-810-01, Confined Spaces

Construction Safety		
29 CFR 1910, Occupational Safety and Health Standards 29 CFR 1926, Safety and Health Regulations for Construction DOE O 440.1A, Attachment 2, Sections 6, 7, 8, 14 – Construction Safety	402-00-00, Worker Health and Safety, App. 4, Construction Safety	220-01-01, Construction Project Management 230-03-01, Facility Management Work Control 402-10-01, Hazard Analysis and Control for Facility Work 402-10-03, ES&H Management of Contractor Performed Facility Construction/ Maintenance, Environmental Restoration/ Decontamination & Decommission, and Related Drilling Operations

Electrical		
29 CFR 1910, Occupational Safety and Health Standards 29 CFR 1926, Safety and Health Regulations for Construction ANSI /IEEE C2-1997, National Electrical Code NFPA 70 National Electrical Code 1999	402-00-00, Worker Health and Safety, App. 5, Electrical Safety	402-600-01, Electrical Safety 402-860-01, Lockout/Tagout for Personal Safety 402-860-02, Locking and Tagging Equipment, Machinery, and Systems

Environmental Restoration and Decontamination & Decommissioning (D&D) Safety		
29 CFR 1910, Occupational Safety and Health Standards 29 CFR 1926, Safety and Health Regulations for Construction API Recommended Practice for Inspection, Maintenance, Repair and Remanufacturing of Hoisting Equipment, API RP8B, Sixth Edition, December 1997, effective May 1, 1998.	402-00-00, Worker Health and Safety, App. 6, Environmental Restoration and Decontamination and Decommissioning (D&D) Safety	220-01-01, Construction Project Management 402-10-01, Hazard Analysis and Control for Facility Work 402-880-01, Excavation/Soil Disturbance Permit Process

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
<p>API Recommended Practice for Installation, Maintenance, and Operation of Internal-Combustion Engines. API RP7C-11F, Fifth Edition, November 1, 1994.</p> <p>API Recommended Practice on Application, Care, and Use of Wire Rope for Oil Field Service. API RP9B, Ninth Edition, May 30, 1986, reaffirmed 1992.</p> <p>API Specification for Oil Field Chain and Sprockets. API SPEC 7F, Fifth Edition, October 1, 1993.</p>		

Ergonomics		
<p>LA-WSS 402-870-01, LANL Ergonomics Standard</p> <p>Occupational Safety and Health Act 1970, Statute Public Law 91-596, Sections 4, 5(a)(1), 6, 8</p>	<p>402-00-00, Worker Health and Safety, App. 7, Ergonomics</p>	<p>402-870-01, Ergonomics</p>

Explosives Safety		
<p>29 CFR 1910, Occupational Safety and Health Standards</p> <p>DOE M 440.1-1, Revision 8, 3/96, Explosives Safety Manual</p>	<p>402-00-00, Worker Health and Safety, App. 8, Explosives Safety</p>	<p>402-550-01, Explosives</p>

Energetic Systems (Firearms Safety)		
<p>10 CFR 1046, Physical Protection of Security Interests</p> <p>10 CFR 1047, Limited Arrest Authority and Use of Force for Protective Force Officers</p> <p>Atomic Energy Act of 1954</p> <p>DOE O 440.1A, Attachment 2, Section 16, Firearm Safety</p> <p>U.S. Air Force Regulation AFR 50-36, dated March 15, 1984, Vol 1, Combat Arms Training and Maintenance Program Management, Chap. 2, Facility Criteria, 2-6.b(b)1, including Figure 2-11, and 2-6b(2), including Table 2-1 as applicable to the M-79 grenade launcher.</p>	<p>402-00-00, Worker Health and Safety, App. 10, Firearms Safety</p>	<p>300-00-01, Safe Work Practices</p>

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
---	---	--

Food		
1993 Food Service and Processor Regulations (NMED), E1BFQM2 1995 U.S. Public Health Service Food Code (FDA), PB95-265492 DOE 440.1A, Attachment 2, Section a8, Industrial Hygiene	402-00-00, Worker Health and Safety, App. 11, Food Sanitation	Contained in LPR

General Occupational Safety		
29 CFR 1904.1-13, Recording Occupational Injuries 29 CFR 1905, Variances, Limitations, Tolerances, Exemptions, etc. 29 CFR 1910, Occupational Safety and Health Standards 29 CFR 1926, Safety and Health Regulations for Construction ACGIH, 1997, <i>Threshold Limit Values</i> , Light and Near-Infrared Radiation; Static Magnetic Fields; Sub-Radiofrequency (30kHz and below) Magnetic Fields; Sub-Radiofrequency (30kHz and below) and Static Electric Fields; Ultraviolet Radiation; Cold Stress; Heat Stress; Noise; Chemical Substances Fire Protection Association (NFPA) <i>National Fire Codes</i> (most recent addition) with the exception of NFPA 70, National Electrical Code – NFPA 70 National Electrical Code 1999 Occupational Safety and Health Act of 1970, Statute PL 91-956, Section 4,5(a)(1), 6, 8	402-00-00, Worker Health and Safety, App. 12, General Occupational Safety	300-00-01, Safe Work Practices 300-00-02, Documentation of Safe Work Practices 402-820-01, Noise and Temperature Stresses 402-840-01, Welding, Cutting, and Other Spark - or Flame-Producing Operations 402-850-01, Staff Shop Operations

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
Ionizing Radiation Safety		
10 CFR 830.120, Quality Assurance for Nuclear Facilities 10 CFR 835, Occupational Radiation Protection	402-00-00, Worker Health and Safety, App. 13, Ionizing Radiation Safety	402-700-01, Occupational Radiation Protection Requirements

Material Handling (cranes...)		
29 CFR 1910, Occupational Safety and Health Standards 29 CFR 1926, Safety and Health Regulations for Construction	402-00-00, Worker Health and Safety, App. 14, Material Handling Safety	402-10-01, Hazard Analysis and Control for Facility Work 402-1110-01, Forklifts & Powered Industrial Trucks

Nonionizing Electromagnetic Radiation and Fields Safety		
21 CFR 1040, Performance Standards for Light Emitting Products 29 CFR 1910, Occupational Safety and Health Standards 29 CFR 1926, Safety and Health Regulations for Construction ACGIH, 1997, <i>Threshold Limit Values</i> , Light and Near-Infrared Radiation; Static Magnetic Fields; Sub-Radiofrequency (30kHz and below) Magnetic Fields; Sub-Radiofrequency (30kHz and below) and Static Electric Fields; Ultraviolet Radiation; Cold Stress; Heat Stress; Noise; Chemical Substances ANSI Z136.1-1993, Safe Use of Lasers ANSI Z136.2-1997, Safe Use of Optical Fiber Communication Systems Utilizing Laser Diode and LED Sources ANSI Z535.2-1991, Environmental and Facility Safety Signs ANSI Z535.3-1991, Criteria for Safety Symbols IEEE, <i>American National Standards Safety Level with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3kHz</i>	402-00-00, Worker Health and Safety, App. 15, Nonionizing Electromagnetic Radiation and Fields Safety	402-400-01, Lasers 402-400-02, Radio-Frequency and Microwave (RFMW) Radiation and Fields (30 kHz to 300 GHz) 402-100-01, Signs, Labels and Tags 405-840-01, Welding, Cutting, and Other Spark - or Flame-Producing Operations

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
<i>to 300Ghz, C95.1-1991 (1992). [Note: Where the ACGIH standard conflicts with the IEEE standard (specifically they overlap at the frequencies from 3kHz to 30kHz), the ACGIH guidance will be used because it is reviewed and updated annually.]</i>		

Nuclear Criticality Safety		
ANSI/ANS-8.1-1981 (R 1988), Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors ANSI/ANS-8.3-1986, Criticality Accident Alarm System ANSI/ANS-8.5-1966, Use of Borosilicate Glass Raschig Rings as a Neutron Absorber in Solutions of Fissile Materials” ANSI/ANS-8.6-1966 (R1985), Safety in Conducting Subcritical Neutron-Multiplication Measurements in Situations ANSI/ANS-8.7-1975 (R1987), Guide for Nuclear Criticality Safety in the Storage of Fissile Materials ANSI/ANS-8.9-1987 (R1995), Nuclear Criticality Safety Criteria for Steel-Pipe Intersections Containing Aqueous Solutions of Fissile Material ANSI/ANS-8.10-1983 (R1988), Criteria for Nuclear Criticality Safety Controls in Operations with Shielding and Confinement ANSI/ANS-8.12-1987 (R1993), Nuclear Criticality Control and Safety of Plutonium-Uranium Fuel Mixtures Outside Reactors ANSI/ANS-8.15-1981 (R1995), Nuclear Criticality Control of Special Actinide Elements ANSI/ANS-8.17-1984 (R1996), Criticality Safety Criteria for the Handling Storage, and Transportation of LWR Fuel Outside Reactors ANSI/ANS-8.19-1996, Administrative Practices for Nuclear Criticality Safety ANSI/ANS-8.20-1991, Nuclear Criticality Safety Training ANSI/ANS-8.21-1995, Use of Fixed Neutron Absorbers in the Design of Nuclear Facilities Outside Reactors ANSI/ANS-8.22-1997, Nuclear Criticality Safety Based on Limiting and Controlling Moderators	402-00-00, Worker Health and Safety, App. 16, Nuclear Criticality Safety	402-300-01, Nuclear Criticality Safety 404-00-03, Hazardous and Mixed Waste Requirements for Generators

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
ANSI/ANS-8.23-1997, Nuclear Criticality Accident Emergency Planning and Response DOE O 420.1, Facility Safety, except for Section 4.3.2d(1) and Section 4.3.2d(2), 3 rd sentence		
Occupational Medicine		
10 CFR 1046, Physical Protection of Security Interests 10 CFR 26, Fitness for Duty Programs 10 CFR 707, Workplace Substance Abuse Programs at DOE Facilities 10 CFR 710, Access to Classified Material and SNM 10 CFR 745, Federal Policy for the Protection of Human Subjects; Notices and Rules 10 CFR 835, Occupational Radiation Protection 21 CFR 50, Protection of Human Subjects 21 CFR 56, Institutional Review Boards 29 CFR 1910, Occupational Safety and Health Standards 29 CFR 1926, Safety and Health Regulations for Construction 42 CFR 2, Confidentiality of Alcohol and Drug Abuse Patient Records 42 CFR 405, Federal Health Insurance for the Aged and Disabled, et. al, Clinical Laboratory Improvement Amendments of 1988 45 CFR 46; Subparts B, C, and D, Research Activities which may be reviewed through expedited review procedures; Department of Health and Human Services, Protection of Human Subjects 49 CFR 30-399, Department of Transportation, Motor Carrier Safety Regulations; 49 CFR 382, Controlled Substances and Alcohol Use and Testing 49 CFR 40, Procedures for Transportation Workplace Drug Testing 5 CFR 630.1207, Medical Certification Americans with Disabilities Act (ADA) Atomic Energy Act of 1954 DOE O 440.1A, Attachment 2, Section 19, Occupational Medicine Family Medical Leave Act New Mexico Workers' Compensation Act Privacy Act, California Information Practices Act	402-00-00, Worker Health and Safety, App. 17, Occupational Medicine	Contained in LPR

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
---	---	--

Pressurized Systems and Cryogenics		
29 CFR 1910, Occupational Safety and Health Standards 29 CFR 1926, Safety and Health Regulations for Construction 49 CFR 171-179, Department of Transportation, Motor Carrier Safety Regulations DOE O 440.1A, Attachment 2, Section 20, Pressure Safety	402-00-00, Worker Health and Safety, App. 18, Pressurized Systems and Cryogenics	402-580-01, Cryogenic Fluids or Cryogenics 402-1200-01, Pressure, Vacuum and Cryogenic Systems

Traffic/Vehicles		
14 CFR, Aeronautics and Space 29 CFR 1910, Occupational Safety and Health Standards 49 CFR 106-399, Department of Transportation, Motor Carrier Safety Regulations; Manual on Uniform Traffic Control Devices (MUTCD) MVC 5-93, State of New Mexico New Mexico State Highway and Transportation (NMSH&T) Specifications for Bridge and Road Construction TRD Rule MCS-96, State of New Mexico, New Mexico Adoption of Federal Motor Carrier Safety Regulations with certain amendments	402-00-00, Worker Health and Safety, App. 19, Traffic Safety	402-1320-01, Vehicular Safety 402-1320-02, Aviation Safety

Crosswalk of ES&H Work Smart Standards/Other Contractual Requirements to Laboratory Performance Requirements (LPRs) and Implementing Requirements (LIRs)

ESH Work Smart Standards/ Other Contractual Requirements	Laboratory Performance Requirements (LPRs)	Laboratory Implementation Requirements (LIRs)
<i>Packaging and Transportation</i>		
10 CFR 71, Packaging and Transportation of Radioactive Material 10 CFR 871, Air Transportation of Plutonium 49 CFR 30-399, Department of Transportation, Motor Carrier Safety Regulations; DoD TB 700-2, Explosives Classification DoD TP 45-51D, Tie down for Weapons DOE M 440.1-1, Revision 8, 3/96, Explosives Safety Manual DOE O 460.1a, Packaging and Transportation Safety, Attachment 1, Contractor Requirements Document, Paragraphs 2 and 6 International Civil Aviation Organization/ International Air Transport Association Regulations (ICAO/IATA) International Maritime of Dangerous Goods Code (IMDG) LIR 405-10-01, Packaging and Transportation, Sections 6.9 and 6.11 (WSS) TRD Rule MCS-96, State of New Mexico, New Mexico Adoption of Federal Motor Carrier Safety Regulations with certain amendments	405-00-00.0, Packaging and Transportation	405-10-01, Packaging and Transportation